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ABSTRACT OF THE DISCLOSURE

A bandwidth control system for a network, the network having a host computer that includes a first network interface and a second network interface. A packet driver adapted to be executed on the host computer is logically connected to the first network interface and the second network interface. The packet driver captures packets received from the network on the first network interface. A traffic shaper adapted to be executed on the host computer maintains a topology representation of the network, the topology representation including one or more nodes. The traffic shaper performs priority and packet rate metering functions on the captured packets to match a set of rate conditions unique to each node in the topology representation of the network. The captured packets are returned to the packet driver for transmission to the network on the second network interface.